

PATENT

REMARKS:

At the time of the Final Office Action, claims 1, 4, 8-10, 12 and 14-20 were pending and considered. All claims stand rejected. Claims 1, 4, 8-10, 12 and 14-20 remain pending. Reconsideration and allowance are respectfully requested.

Claims 1, 4, 8, 9, 12 and 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over DE 297 022 78 (Chang et al.) in view of FR 2 469 771 (Cheh) and further in view of US 3,854,784 (Hunt et al.). Claims 10 and 14-17 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Chang et al. in view of Cheh and Hunt et al., and further in view of JP 11270212 (Sasaki). These rejections are traversed for at least the following reasons.

As previously argued, the Examiner's reliance on an untranslated foreign reference as the basis for his rejections is improper. However, in order to advance the prosecution of this application, the applicants have provided herewith an English language translation of Cheh. This is in no way intended to imply that the Examiner proceeded properly in regards to his refusal to provide the applicants with an appropriate translation. But, in order to convince the Examiner that Cheh does not solve the deficiencies of the other references for at least the reasons previously set forth, the applicants obtained the attached translation. In order to allow the applicants an opportunity to respond to the improper rejection and reliance on a previously untranslated reference, it is respectfully requested that the Examiner enter this Amendment and withdraw the finality of the last rejection.

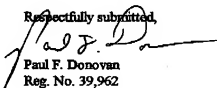
Although it is respectfully argued that the claims are patentable over the proposed combination of references for at least the reasons previously expressed, in order to simply further advance the prosecution of the subject application, claims 1, 12 and 19 have been further amended. More specifically, the claims have been amended to more clearly recite that the follower enters and leaves the associated track and portal component upon the opening and closing of the drawer. As described in the translated version of Cheh, the steel ball (28) never leaves the associated groove (see, e.g., page 3, lines 10-27 and FIG. 4). Thus, none of the references, taken alone or in combination, teach all of the limitations now set forth in the pending claims.

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No new matter has been added by way of the amendments and remarks made herein. Reconsideration and allowance of all the remaining pending claims are respectfully requested. In the event that there are any issues that can be expeditiously handled by telephone conference, the Examiner is invited to telephone the undersigned at the number provided below.

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FRENCH REPUBLIC
NATIONAL INSTITUTE OF
INDUSTRIAL PROPERTY

PARIS

(11) Publication No. :
(to be used only for orders
of copies).

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**PATENT
APPLICATION**

No. 79 28318

(21)

(54) Box for putting into store a cassette, cartridge or drawer

(51) International classification (Int. Cl. ³). G 11 B 23/06

(22) Filing date. November 18, 1979.

(33)(32)(31) Priority claim:

(41) Date of making available the application to
the public. Official Journal of Industrial Property - "Lists" No. 21 of May 22, 1981.

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The present invention relates to a box for putting into store a cassette, cartridge or drawer, the box being particularly adapted for putting into store cassettes containing magnetic tapes.

Different kinds of boxes are known for putting into store a cassette, a cartridge or a drawer, but most of them do not efficaciously protect the magnetic tape that they contain, such that the tape is damaged by moisture, dust and oxidation. Furthermore, those boxes cannot be anchored onto each other and are very difficult to file. In particular, when a particular tape is needed, numerous boxes have to be opened in order to search for the right tape, which takes a long time and is inconvenient. Despite having a turning casing to put into store and to classify cassettes and cartridges, that casing is bulky and not very practical.

Consequently the present invention relates to a new box making it possible to put into store cassettes, cartridges or drawers while avoiding the drawbacks of the conventional boxes.

To that end, a box produced in accordance with the present invention comprises a screen and an extractor disposed in the latter in order to put the cassette, the cartridge or the drawer. Each screen is provided with shoulders and corresponding channels adapted to cooperate with other screens in order to form an assembly. This feature enables easier manipulation and classification of the tapes.

In accordance with another feature of the invention, a box is provided with an extractor making it possible to place a cassette, a cartridge or a drawer in a screen, said extractor being able to be opened from the screen and present the cassette, the cartridge or the drawer put into store, by pressing lightly on the front wall of the extractor.

A box produced in accordance with the invention furthermore has the advantage of taking up limited space when several of them cooperate to form an assembly. The boxes according to the invention moreover ensure good protection of the tapes that they contain.

A preferred embodiment of the invention will now be described by way of non-limiting example, with reference to the accompanying drawings in which

- 5 -Fig. 1 is a perspective view from above of a box produced in accordance with the present invention;
- Figure 2 is a perspective view from below of the box according to the present invention;
- Figure 3 is a view of the box according to the invention showing the internal structure of its screen;
- 10 -Figure 4 represents a groove formed on the bottom of the box receiving the steel ball of the extractor;
- Figure 5 shows how the boxes according to the invention may be assembled; and
- Figure 6 represents another type of assembly of the boxes
- 15 according to the present invention.

As Figure 1 shows, the box of the present invention comprises a screen and an extractor. The upper wall 1 of the screen comprises two parallel rails 11 and 11' each provided with a vertical external side and an inclined internal side. A shoulder 12 provided with two sections of groove 13 and 13' is
20 disposed between the two parallel rails. The extractor may be inserted inside the screen, which comprises a bed 3 supporting the cassette, the cartridge or the drawer, a front wall 31 and a back wall 35. A label giving a description concerning the tape put into store may be stuck onto the front wall 31. Two lugs 32 and 32' insert into the holes formed in the two hubs of the cassette placed
25 inside. The references 33 and 33' designate two channels and the references 34 and 34' designate two slots.

As shown in Figure 2, the lower wall 2 comprises two channels 21 and 21' and a hollow 22 corresponding to the rails 11 and 11' and to the shoulder 12 formed on the upper wall 1 of the screen. Reference 23 designates
30 an inclined block. The lower side of the bed 3 receiving the cassette contains a groove 36 in which a steel ball 28 can freely turn. The front end 37 of the groove

36 defines a loop of which the shape is represented in the drawing, and the depth of the rear end of the groove decreases gradually.

As shown by Figure 3, the internal structure of the screen comprises the two channels 21 and 21', a base 25 on which is received a spring 26, and a strip 29 connected to the lower wall 2, the strip comprising two shoulders bent upwardly 291 and 291' adapted to come into engagement with the two corresponding channels 33 and 33' formed on the bed 3 of the extractor. A hole 27 in which the steel ball 28 is received is formed in the vicinity of the front end of the strip 29.

The relative disposition of the steel ball 26 and of the groove 36 on opening and closing the extractor is explained in Figure 4. When the two shoulders 291 and 291' of the strip 29 disposed on the bottom wall 2 of the screen are engaged in the two channels 33 and 33' of the bed 3 of the extractor, the steel ball 26 is blocked between the hole 27 formed on the strip 29 and the groove 36 formed on the lower wall of the extractor. When the extractor is closed, the steel ball 26 occupies position A at the front end 27 of the groove 36 as shown by Figure 4. When the front wall 31 of the extractor is pressed, given that position B is lower than position A, the ball rolls to position B due to gravity. As soon as pressure on the front wall 31 is released, the spring 26 presses the extractor and the ball rolls towards position C, then towards position D, and lastly to position G. At this time, the extractor is projected into its maximum outward position. The cassette, the cartridge or the drawer may then easily be extracted. When the front wall 31 of the extractor is pressed forwards so as to close the extractor, given that position E is lower than position D, the ball rolls to position E due to gravity, then to position F. However, the spring 26 still presses on the extractor, such that the ball rolls to position A, then stops. At this time, the front wall 31 exactly covers the screen and closes the box.

Figure 5 shows how the boxes are connected together vertically by the cooperation of the channels 21 and 21' and of the hollow 22 formed on the wall lower 2 of a box with the rails 11 and 11' and the shoulder 13 formed... [the remainder of the description of this document in French, as published, is illegible].

CLAIMS

1. A box for putting into store a cassette, a cartridge or a drawer, characterized in that it comprises a screen provided with rails (11, 11') and a shoulder (12) on the upper wall (1) and corresponding channels (21, 21') and a hollow (22) on its lower wall (2) to cooperate with other screens, an extractor disposed in said screen to receive the cassette, the cartridge or the drawer, said extractor comprising a front wall (31) making it possible to cover said screen and identify the tape that it contains, a back wall (35) connected to a spring (26) and urged out of said screen by the spring, a groove (36) formed on the lower wall (3) of the extractor and a hole on the inner lower wall (2) of the screen blocking a steel ball (28) of appropriate diameter in order to avoid the extractor being separated from the screen when the extractor is projected out from the screen and in order to from the closing and opening actions between the extractor and the screen.
2. A box according to claim 1, characterized in that said boxes are connected horizontally by connectors (4) which cooperate with two rails (11, 11') formed on the upper walls (1) of the neighboring boxes.
3. A box according to claim 1, characterized in that said boxes are connected vertically by making the channels (21, 21') and the hollow (22) formed on the lower wall (2) of a box to cooperate with the rails (11, 11') and the shoulder (12) formed on the upper wall of another box.

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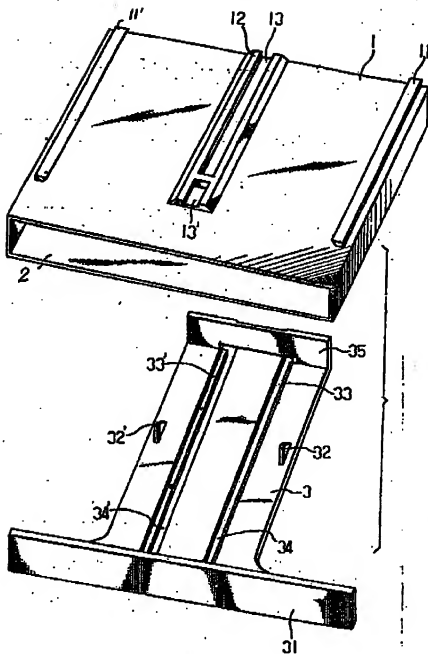


FIG. 1

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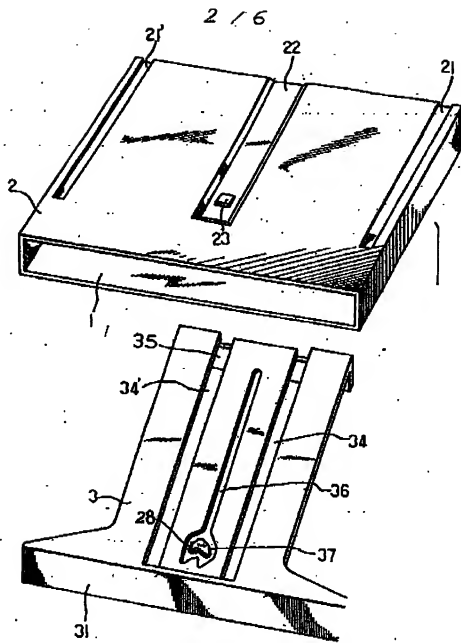


FIG. 2

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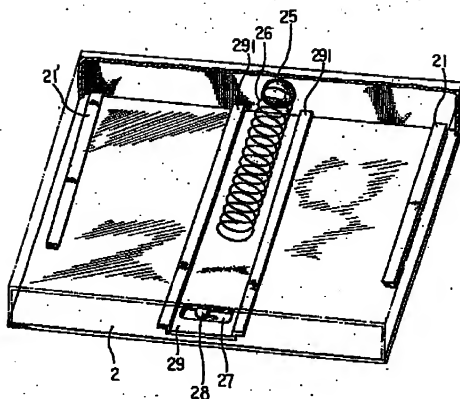


FIG. 3

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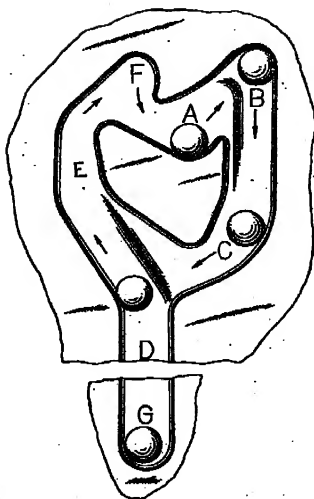


FIG. 4

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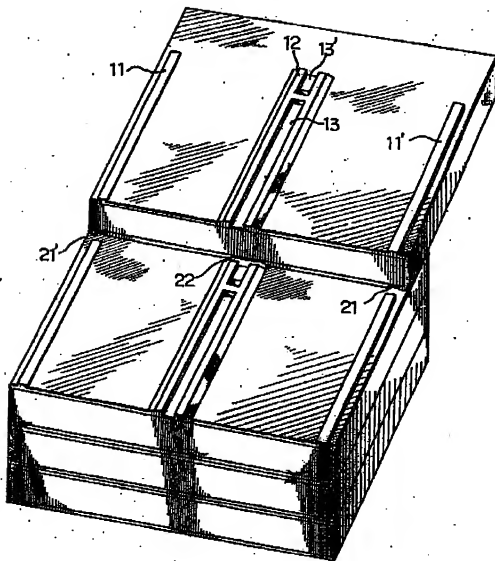


FIG. 5

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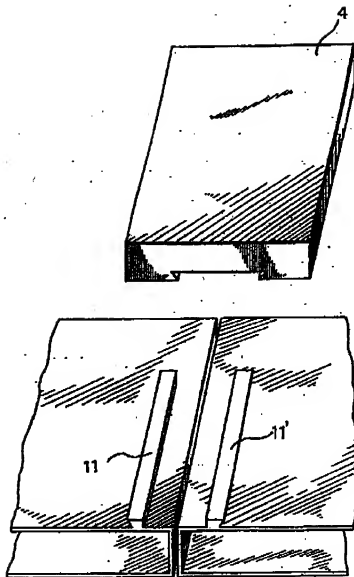


FIG. 6